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| 10/529,053 | 10/28/2005 | Henri Lee | Q87051 | 1770 |

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| EXAMINER | |
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| SAINT CYR, JEAN D | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/529,053 | LEE, HENRI | |
| | Examiner | Art Unit | |
| | JEAN D. SAINT CYR | 2623 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-19* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 October 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### Response to Amendment

This action is in response to applicant's amendment filed on 05/06/2008. Claims 1-15 are still pending in the current application and claims 16-19 are added. This action is made **NON-FINAL.**

### Response to Arguments

Applicant's arguments were fully considered. Applicant argues that Georger et al did not clearly disclose passing the signal from the twisted wire to coaxial cable. Also, applicant argues that the system of Georger is totally passive.

Examiner only agrees that Georger et al did not explicitly disclose passing the signal from the twisted wire to coaxial cable, but Decramer et al clearly disclose that limitation in fig.2. Regarding first processing unit and second processing, Georger et al show in one side of fig.2 that the input terminal is coaxial cable and show in the other side of fig.1 that the output terminal is twisted wire. That means there are some components inside that box that are responsible to process that transformation. For that reason, Fig.2 is a real processing unit. However, this action is made NON-FINAL.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-9, 13, 15-16, 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georger et al in view of Decramer et al, US No. 6150896.

Re claim 1, Georger et al disclose a System for the distribution of television type video signals (an exemplary system for distributing coaxial based CATV RF signals over unshielded twisted-pair cabling, col.2, lines 53-55) with a frequency band of up to about 5 to 900 MHz (it is understood that the present invention can process carrier frequencies up to 750 MHz, Col.3, lines 59-61), the said system comprising:

an input(input port could be a standard female coaxial F-type connector, Col.2, lines 58-59) coaxial cable (from a coaxial cable, col.2, lines 20-21)adapted for connection to a TV antenna or to a cable television network(providing the end user with the broadband CATV RF signal, col.1, lines 24-25)

- an output coaxial cable(see fig.4, element 46, modular output plug; distribution panel 1 includes a plurality of 8-pin modular output jacks, col.2, lines 50-52) adapted for connection to a television set(connected to the user's device, col.1, lines 21-22; that means a television or any other display device)
characterized in that it also comprises:

a first input processing unit( see fig.3, element 14, splitting means) comprising a coaxial input terminal(see fig.3, element 12, input port) , at least one low current terminal(By providing a termination device, the radiated loss associated with unterminated signals is virtually eliminated, col.2, lines 12-14; that means low current because power dissipation is virtually eliminated , P=RI^2) for twisted wire pairs(twisted-pair cables, col.2, line 10) and processing means for
processing TV signals output from the coaxial cable(a coaxial based CATV RF signal is directed through an input connector, col.2, lines 5-7) so as to transform them into signals with substantially the same transmission characteristics on the same frequency band on a twisted wires pair( see fig.3, element 14, splitting means; that means this block processes the received signal to different outputs where the frequency of transmission stays the same),

at least one second output processing unit(see fig.3, element 30, terminating means) comprising a low current input port(By providing a termination device, the radiated loss associated with unterminated signals is virtually eliminated, col.2, lines 12-14; that means low current because power dissipation is virtually eliminated) for twisted wire pairs(twisted-pair cables, col.2, line 10), a coaxial output terminal and processing means for processing signals output from a twisted wires pair connected to the first input processing unit so as to transform them into signals substantially identical to the signals output from the said coaxial cable(distributes the coaxial based CATV RF signal into a group of output signals that are coupled to unshielded twisted-pair cables, col.1, lines 64-67), and

at least one connecting cable consisting of twisted wire pairs connecting the first processing unit to the second processing unit (splitting circuit receives the signal through the connector and separates the signal into a group of output signals. The output signals are then coupled to unshielded twisted-pair cables, col.2, lines 5-10; that means the splitting device is only process the signal without changing anything).

But Georger et al did not explicitly disclose an output coaxial cable adapted for connection to a television set.

However, Decramer et al disclose an output coaxial cable adapted for connection to a television set(see fig.2, element 40; the unbalanced side 20 of said device 10 connected by way of coaxial cable 40 or other suitable connector directly to the end video device 42 such as a television receiver, col.3, lines 32-35).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Georger with the system of Decramer for the benefit of making the system more usable.

Re claim 2, Georger et al disclose in which the first input processing unit comprises means of cutting off the signal transmission in the case in which a cable consisting of twisted wire pairs is not connected to the low current output terminal of the first input processing unit (the output signals are automatically terminated when the unshielded twisted-pair cable is detached, col.1, lines 66-67 and col.2, line 1; also see fig.4, element 30, terminating means).

Re claim 3, Georger et al in which the low current output terminal of the first input (see fig.1, element 2) processing unit comprises means of detecting the presence of a low voltage connector connected to the twisted wires cable and plugged into the said output terminal (The terminating means is designed to properly terminate the output signal when an unshielded twisted-pair cable is not connected to an output signal. The terminating means has impedance matched to the characteristic impedance of the unshielded twisted-pair cables, typically 100 ohms, col.3, and lines 19-24; that means the system is capable to detect the presence or the absence of the impedance of the twisted wire cable).

Re claim 4, Georger et al disclose in which the first input processing unit comprises means of cutting off the signal transmission in the case in which a coaxial cable is not connected to the coaxial output terminal of the second input processing unit (the output signals are automatically terminated when the unshielded twisted-pair cable is detached, col.1, lines 66-67 and col.2, line 1; also see fig.4, element 30, terminating means).

Re claim 5, Georger et al disclose in which the coaxial output terminal of the second output processing unit comprises means of detecting the presence of a low voltage connector connected to an output coaxial cable and plugged into the said coaxial output terminal (The terminating means is designed to properly terminate the output signal when an unshielded twisted-pair cable is not connected to an output signal. The

terminating means has impedance matched to the characteristic impedance of the unshielded twisted-pair cables, typically 100 ohms, col.3, and lines 19-24; that means the system is capable to detect the presence or the absence of the impedance of the twisted wire cable).

Re claim 6, Georger et al disclose in which one twisted wires pair in the said connecting cable acts as a loop back line between the second and the first processing unit to transmit a connector present or absent signal to the cut-off means (The terminating means is designed to automatically terminate the output signal when the output signal is disconnected, minimizing the return loss. The return loss is a measure of power reflected back to the source, col.3, lines 25-28).

Re claim 7, Georger et al disclose in which the first input processing unit (see fig.3, element 12, input port) comprises signal processing means , a cross connect and several low current output terminals(see fig.1, element 2, plurality of output terminal ) for twisted wire pairs each connected to the cross connect , the cut-off means acting between the cross connect and the said output terminals so as to cut off transmission of signals between the cross connect and the output terminal for which the lack of a plugged-in connector is detected(The terminating means is designed to properly terminate the output signal when an unshielded twisted-pair cable is not connected to an output signal. The terminating means has impedance matched to the characteristic impedance of the unshielded twisted-pair cables, typically 100 ohms, col.3, lines 19-24; that means the system is capable to detect the presence or the absence of the impedance of the twisted wire cable; also see fig.4, element 30, terminating means).

Re claim 8, Georger et al disclose in which a sub-cross connect assembly is installed between the first and the second processing units(see fig.3), with at least one cable consisting of twisted wire pairs(distributes the coaxial based CATV RF signal into a group of output signals that are coupled to unshielded twisted-pair cables;, col.1, lines 64-66) connecting the first processing unit to the sub-cross connect assembly , and at

least one other cable consisting of twisted wire pairs connecting the sub-cross connect assembly to the second processing unit , the said second unit comprising a coaxial output terminal and at least one output terminal for twisted wire pairs(The output signals are then coupled to unshielded twisted-pair cables, col.2, lines 9-10).

Re claim 9, Georger et al disclose in which the second processing unit is in the form of an adapter(see fig.4, element 46, modular output plug, that means adapter) comprising a low current connector (see fig. 4, element 45,modular output jack ) for twisted wire pairs adapted so that it can be plugged onto a low current terminal for twisted wire pairs connected to the said sub-cross connect assembly for a cable consisting of twisted wire pairs(The output signals are then coupled to unshielded twisted-pair cables, col.2, lines 9-10).

Re claim 13, Georger et al did not explicitly disclose in which the processing means of the second processing unit comprise passive means such as a balun.

However, Decramer et al disclose a balun in fig.6.

It would have been obvious to combine the two inventions for the benefit of making the system more efficient in balancing line.

Re claim 15, Georger et al disclose TV signals(distributes the coaxial based CATV RF signal into a group of output signals that are coupled to unshielded twisted-pair cables, col.1, lines 64-67) processing unit with a frequency band varying from 5 to 65 MHz for the return channel and 86 to 862 MHz for the down channel(it is understood that the present invention can process carrier frequencies up to 750 MHz, Col.3, lines 59-61 ) the said processing unit comprising a coaxial input terminal(a coaxial based CATV RF signal is directed through an input connector, col.2, lines 5-7) , processing means for transforming TV signals output from the input terminal in signals with substantially the same transmission characteristics on the same frequency band and

that can be transmitted for a twisted wires pair(see fig.3, element 14, splitting means; that means this block processes the received signal to different outputs where the frequency of transmission stays the same), and at least one output terminal for twisted wire pairs(see fig.3, element 14, splitting device where the output of the processing unit is connected the input of the second processing unit),

characterized in that it also comprises means of cutting off the signal transmission acting on the input side of output terminals to cut off the signal transmission at an output terminal that is not connected indirectly( the output signals are automatically terminated when the unshielded twisted-pair cable is detached, col.1, lines 66-67 and col.2, line 1;also see fig.4, element 30, terminating means ), advantageously through a second output processing unit connected to the said terminal through a cable consisting of twisted wire pairs, to a coaxial cable connected to a TV set.

But Georger et al did not explicitly disclose a second output processing unit connected to the said terminal through a cable consisting of twisted wire pairs, to a coaxial cable connected to a TV set.

However, Decramer et al disclose a second output processing unit connected to the said terminal through a cable consisting of twisted wire pairs, to a coaxial cable connected to a TV set (see fig.2; the unbalanced side 20 of said device 10 connected by way of coaxial cable 40 or other suitable connector directly to the end video device 42 such as a television receiver, col.3, lines 32-35).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Georger with the system of Decramer for the benefit of making the system more usable.

Re claim 16, Georger et al disclose a first input processing unit (see fig.3,

splitting means) comprising a coaxial input terminal (see fig.2, element 4) and at least one twisted wire pair output terminal (see fig.1, element 2, modular jack);

at least one second output processing unit comprising a twisted wire pair input terminal and a coaxial output terminal (see fig.3, terminating means);

an input coaxial cable connected to the coaxial input terminal of the first input processing unit (see fig.2, element 4);

an output coaxial cable connected to the coaxial output terminal of the second output processing unit; and

at least one twisted wire pair cable connecting the first input processing unit to the second output processing unit(see fig.3),
wherein:

the first input processing unit transforms signals from the input coaxial cable into signals on the twisted wire pair cable(see fig.1; the input is coaxial and the output is twisted wire pair); and

But Georger et al did not explicitly disclose an output coaxial cable connected to the coaxial output terminal of the second output processing unit; and the second output processing unit transforms signals from the twisted wire pair cable into signals on the output coaxial cable.

However, Decramer et al disclose an output coaxial cable connected to the coaxial output terminal of the second output processing unit; and the second output processing unit transforms signals from the twisted wire pair cable into signals on the output coaxial cable (see fig.2; the unbalanced side 20 of said device 10 connected by way of coaxial

cable 40 or other suitable connector directly to the end video device 42 such as a television receiver, col.3, lines 32-35).

It would have been obvious for any person of ordinary skill in the art at that time the invention was made to combine the system of Georger with the system of Decramer for the benefit of making the system more usable.

Re claim 19, Georger et al did not explicitly disclose wherein the system is capable of distributing video signals with a frequency band of up to about 900 MHz.

Georger et al disclose it is understood that the present invention can process carrier frequencies up to 750 MHz, Col.3, lines 59-61.

From that information, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to know that a broadcasting video signal is capable of handling frequencies up to 900 MHz.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Georger et al in view of Decramer further in view of Rutledge US. 6323427.

Re claim 10, Georger et al fail to disclose in which the twisted wires pair that transmits the transformed TV signals is shielded.

In an analogous art, Rutledge et al disclose in which the twisted wires pair that transmits the transformed TV signals is shielded (Each of the twisted pairs 16 may also be individually or collectively wrapped in a foil shield or other type of conventional shield for additional protection, col.4, lines 1-3).

In view f the teaching of Rutledge, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to implement in which the

twisted wires pair that transmits the transformed TV signals is shielded into the system of Georger. with that extra option, the system will become safer by limiting any kind of interferences among signals.

Claims 11, 12, 14, 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Georger et al in view of Flickinger et al, US No. 5901340.

Re claim 11, Georger et al did not explicitly disclose in which the first input processing unit is an active unit comprising active processing means.

In an analogous art, Flickinger et al disclose in which the first input processing unit is an active unit comprising active processing means (the amplifications of the stages of the distribution unit 60 are selected to operate with an outlet 196 located 240 feet from the distribution unit 60. Such an outlet is constructed with built-in baluns 34, col.8, lines 3-6; with amplification that means there is active device).

In view of the teaching of Flickinger, it would have been obvious for any person of ordinary skill in the art at that time invention was made to implement active unit into the system of Georger. With that option, the system will be able to increase the amplitude of the signal whenever there is some loss in the power of signal.

Re claim 12, Georger et al fail to disclose in which the active processing means comprise an amplification stage.

In an analogous art, Flickinger et al disclose which the active processing means comprise an amplification stage (see fig.2, element 78, amplification stage).

In view of the teaching of Flickinger, it would have been obvious for any person of ordinary skill in the art at that time the invention was made to introduce amplification

stage into the system of Georger. With that particular option, the system will be capable to increase the amplitude of the power signal whenever there is loss in the power signal.

Re claim 14, Georger et al disclose all the limitation of claim 14, but did not disclose modulator.

In an analogous art, Flickinger et al disclose modulator (see fig.1, element 29, modulator).

In view of the teaching of Flickinger, it would have been obvious for any person of ordinary skill in the art to implement modulator into the system of Georger. With that option the system will be able to receive a baseband input signal and outputs a radio frequency-modulated signal.

Re claims 17-18, see rejection on claims 11 and 12 respectively

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean Duclos Saintcyr whose phone number is 571-270-3224. The examiner can normally reach on M-F 7:30-5:00 PM EST.If attempts to reach the examiner by telephone are not successful, his supervisor, Brian Pendleton, can be reach on 571-272-7527. The fax number for the organization where the application or proceeding is assigned is 571-273-8300. Information regarding the status of an application may be obtained from the Patent Application Retrieval (PAIR) system. Status information for published applications may be obtained from either private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see htpp://pair-direct.uspto.gov. Should you have questions on access to the private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197(toll free). If you would like assistance from a USPTO Customer Service Representative or access to the

automated information system, dial 800-786-9199(IN USA OR CANADA) or 571-272-1000.

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